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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,669	07/17/2000	Eric P. Traut	MSFT-2118/304101.01	8184

41505 7590 11/01/2007

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EXAMINER	
CHUONG, TRUC T	
ART UNIT	**PAPER NUMBER**
2179	
MAIL DATE	**DELIVERY MODE**
11/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/617,669	TRAUT ET AL.	
	Examiner	Art Unit	
	Truc T. Chuong	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 18-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16, and 18-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This communication is responsive to the Amendment, filed 08/10/07.

Claims 1-16, and 18-34 are pending in this application. In this communication, claims 1, 8, 11, 12, 21, 23, 30, and 33 are independent claims, and claim 17 is previously canceled. This action is made final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

Claim Rejections - 35 USC § 103

1. Claims 1-2, 6, 8-15, 18-21, 23, 26, 28-29, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Webb et al. ("Webb", U.S. Patent No. 5,727,135).

As to claim 1, Webb teaches a computer system for running one or more software applications, wherein the software applications are suitable for generating a video output, the computer system comprising:

a host operating system suitable for displaying a graphical user interface (host computer 11, e.g., col. 5 line 49-col. 6 line 12, and fig. 1);

multiple operating systems running in environments emulated by one or more emulator programs running on the host operating system (at the same time, the host computer 11 can display multiple printers for the user to select one from the list of the available printers, which clearly means that each printer must have its own operating system to operate the printing functions; therefore, each of the printers including that printer operating system can be run/viewed/operated on the host computer 11, and multiple printers with their operating systems

can be also operated in a similar rationale, e.g., col. 5 lines 1-5, col. 22 lines 52-64, figs. 1 and 8); Webb teaches that the host computer 11 is able to display and operate the operating system of the printer running in the background as shown in figs. 1 and 8, col. 3 lines 55-col. 4 line 15, lines 55-65; however, Webb does not clearly show that wherein the host operating system is able to display a reduced-size representation of the video output of at least one operating system from the multiple operating systems. It is well known in the art and it would have been obvious at the time of the invention that a person with ordinary skill in the art would want to modify the system of Webb having the feature of reduced-size representation(s) (or thumbnail(s)) to conveniently help the user to save space on the computer screen for other running applications/tasks.

As to claim 2, Webb teaches the computer system of claim 1, further comprising one or more virtual video memory components suitable for storing the video output of the operating systems (Webb must a virtual memory in order to display the full panel of the printer(s) as shown figs. 1 and 8).

As to claim 6, Webb teaches the computer system of claim 1,

wherein the graphical user interface is a windowing environment suitable for displaying one or more windows (e.g., fig. 8); and

wherein the portion of the graphical user interface comprising the reduced-size representation is a window (see rejection of claim 1 above).

As to claim 8, it is individually similar in scope to claim 1 above; therefore, rejected under similar rationale.

As to claim 9, Webb teaches the computer system of claim 8, wherein the reduced-size representations are representations of the video outputs of the virtual machines that are being

operated in a background mode (each of the plurality operating systems of Webb's printers is running in the background (substantially real-time visual functional replica, e.g., col. 3 lines 55-67)).

As to claim 10, the modified Webb teaches the computer system of claim 8,

further comprising a virtual video memory associated with each of the virtual machines (Webb must a virtual memory in order to display the full panel of the printer(s) as shown figs. 1 and 8); and

wherein the reduced-size representations are generated from the video information stored in the virtual video memory associated with each virtual machine (see the rejection of claim 1 above).

As to claim 11, the modified Webb teaches a method for displaying a reduced-size images of multiple computer systems running in virtual machine environments, said method comprising the steps of:

suspending one or more of the multiple computer systems by saving to memory in a host computer system the image of the each of the suspended computer systems; reading in at an emulator program from memory in the host computer system the image of the suspended computer system (see the rejection of claim 1 above for reduced-size representations);

interpreting in the emulator program the contents of saved images of the suspended computer systems (see the rejection of claim 1 above for reduced-size representations); and

displaying reduced-size representations of the suspended computer systems (see the rejection of claim 1 above for reduced-size representations).

As to claim 12, Webb teaches a method for displaying reduced-size images of multiple computer systems in virtual machine environments and executing on a single computer system, wherein at least two of the multiple computer systems are being simultaneously emulated, said method comprising the steps of:

reading in from memory in a host computer system the image of the computer systems (Note the rejection of claim 11 above); interpreting in the emulator program the contents of the images of the emulated computer systems (Note the rejection of claim 11 above);

displaying a reduced-size representation of the computer systems (Note the rejection of claim 11 above); and

periodically updating the reduced-size representations of the computer systems (each of the plurality operating systems of Webb's printers is running in the background (substantially real-time visual functional replica, e.g., col. 3 lines 55-67)).

As to claims 13-15, and 18-20, they are method claims of system claims 1, 1, 2, 1, 9, and 10. Note the rejections of claims 1, 1, 2, 1, 9, and 10 above respectively.

As to claim 21, it is a method claim of system claim 1. Note the rejection of claim 1 above.

As to claim 23, it can be rejected under similar rationale as claim 1 above.

As to claim 26, Webb teaches the method according to claim 23, further comprising allowing a user to interact with the thumbnails to control the virtual machines (e.g., figs. 1 and 8).

As to claims 28-29, they are method claims of system claims 6 and 9. Note the rejections of claims 6 and 9 above respectively.

As to claims 33-34, they can be rejected under a similar rationale as claims 1 and 26 above.

2. Claims 3-5, 16, 22, 24-25, 27, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Webb et al. ("Webb", U.S. Patent No. 5,727,135) in view of Ote et al. ("Ote", U.S. Patent No. 5,367,628).

As to claim 3, Webb teaches the computer system of claim 2, but the Webb does not teach wherein the one or more of the video memory components are VRAM memory. Ote clearly teaches VRAM memory (Ote, col. 4 lines 47-56, and figs. 2-3). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to have this highly desirable feature of Ote's VRAM into the modified system of Webb to provide fast-block-transfer access to the internal memory.

As to claim 4, the modified Webb teaches the computer system of claim 2, wherein the operating systems operating in a background mode are active (each of the plurality operating systems of Webb's printers is running in the background (substantially real-time visual functional replica, e.g., col. 3 lines 55-67)) as mentioned above; therefore, each icon is also updated to reflect the current status), and one or more thumbnail images (e.g., figs. 1 and 8); but the modified Webb does not clearly show wherein information stored on the video memory components at predetermined intervals. Ote clearly teaches periodically transfer display text and image data, col. 3 lines 50-55, and col. 4 lines 47-55). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to add Ote's time interval into the modified system of Webb to update displayed information.

As to claims 5 and 24, Webb teaches the computer system of claim 4, wherein the predetermined intervals are such that the thumbnail images are real-time representations of the video output from the active software applications (Webb implies that there are at least two operating systems of the printers are emulated as shown in fig. 8, and each of the plurality operating systems of Webb is running in the background as mentioned above; therefore, each thumbnail/icon is also updated to reflect the current status).

As to claims 16, 22, 25, and 27, they are method claims of system claim 3 or they can be rejected under a similar rationale. Note the rejection of claim 3 above.

As to claim 30, it is a combination of claims 1 and 3. Note the rejections of claims 1 and 3 above.

As to claims 31-32, they can be rejected under a similar rationale as claims 21 and 29. Note the rejections of claims 21 and 29 above.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable Webb et al. ("Webb", U.S. Patent No. 5,727,135) in view of Brett ("Brett", U.S. Patent No. 5,850,471).

As to claim 7, the modified Webb does not teach the reduced-size representations are created using a bilinear sampling technique; however, Brett clearly describes the bilinear sampling technique in his High-definition Digital Video Processing System (Brett, col. 10 lines 58-74 and col. 11 lines 1-11). It would have been obvious, at the time of the invention, a person with ordinary skill in the art would want to have this data reduction feature of Brett's bilinear sampling technique into the modified system of Webb to improve performance and quality in graphic data loading process (Brett, e.g., col. 11 lines 1-10).

Response to Arguments

4. Applicant's arguments, filed 08/10/07, with respect to the 35 USC 102 (b) rejection has been fully considered but they are not persuasive.

Applicant has argued and Examiner disagrees with the following reasons:

Webb does not teach or suggest "a host operating system suitable for displaying a graphical user interface, and multiple operating systems running in environments emulated by one or more emulator programs running on the host operating system."

The host computer 11 can display multiple printers for the user to select one from the list of the available printers, which clearly means that each printer must have its own operating system to operate the printing functions {an operating system, by definition, is the software that controls the allocation and usage of hardware resources such as memory, CPU, processor, disk space, and/or peripheral devices, and the OS is the foundation software on which applications/functions/programs depend (see Microsoft Computer Dictionary- Published 2002)}. The host computer 11 must have the emulating programs/software in order to regenerate/formulate the exact/similar displays/objects/icons/menus and functions of each of printers or printer control panels as shown in figs. 1 and 8; therefore, each of the printers including that printer operating system can be run/viewed/operated on the host computer 11, and multiple printers with their operating systems can be also operated in a similar rationale (e.g., col. 5 lines 1-5, col. 22 lines 52-64, figs. 1 and 8). Moreover, Webb also teaches that the host computer 11 is able to display and operate the operating system of the printer

running in the background as shown in figs. 1 and 8, col. 3 lines 55-col. 4 line 15, lines 55-65.

All other arguments can be addressed under a similar rationale.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T. Chuong whose telephone number is 571-272-4134. The examiner can normally be reached on M-Th and alternate Fridays 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Truc T. Chuong

10/26/07

BA HUYNH
PRIMARY EXAMINER